

Amendments to the Specification

Please replace the paragraph at page 4, lines 7 through 21 with the following amended paragraph:

Referring to Fig. 1, in a computer network 10, such as a network using the TCP/IP protocol, a logical connection is maintained between a local node or user 12 and a remote node 30. The user node 12 may, for example be a personal computer (PC) and the remote node 30 may be a file server such as a web server. Data is carried between the user 12 and the remote node 30 by transmitting data in formatted packets, which flow in a stream over the connection. The connection includes both wired links 20, 24 and a wireless link 26. The wireless link 26 is maintained by a base station processor 16 and a subscriber access unit 14, which is in turn connected to the user 12. The base station processor 16 connects to a public access network such as the Internet 28 via an internetworking gateway 18 over the wired link 24. A user 12 can therefore maintain wireless connectivity to a remote node 30 via the wireless link 26 provided by the base station processor 16 and the subscriber access unit 14. The connection between the remote node 30 and the user 12 conforms to a protocol, such as TCP/IP. As described above, TCP/IP was developed for wired networks, and, accordingly, does not lend itself directly to efficient transmissions over the wireless link 26.

Please replace the paragraph at page 5, lines 14 through 28 and page 6, lines 1 through 2 with the following amended paragraph:

Referring to Fig. 3, the flow model table 34 is shown having flow model entries 34a, 34b, [[and]] 34c,...34n. As described above, each flow model entry 34n defines link performance metrics 32 corresponding to the data type of a particular stream of packets. In one embodiment, a packet based network associates ports with applications. By examining the port associated with a transmitted packet, the application type can be determined. For example, in a TCP/IP network, certain well known port numbers 48 are predetermined and identified by RFC 1700 promulgated by the Internet Engineering Task Force (IETF). The flow model entry 34n corresponding to the well known port number 48 determines the application type 50. The application type 50 is indicative of the loss tolerance of the stream. For example, flow model

entry 34c indicates a streaming audio data type. Streaming audio is generally thought to be more loss-tolerant because lost or erroneous packets would merely be heard as a slight pop or glitch in the output audio signal heard by the user. On the other hand, flow model entry 34b corresponds to a file transfer, and accordingly, is not tolerant to lost or erroneous packets. The use of the port number as a link performance characteristic as defined herein is exemplary. Other performance characteristics, such as those defined in the flow model table 34 and others, could be employed in computing the transfer model.

Please replace the paragraph at page 6, lines 3 through 11 with the following amended paragraph:

Referring to Fig. 3, 4, and 5b, the selected flow model 34n is read to determine the corresponding transfer model index 52, as depicted at step 118. The transfer model index 52 is invoked to determine a transfer model entry [[54n]] 54a, 54b, 54c, ...or 54n in the flow model table 42, and the corresponding link control parameters 46 are retrieved, as shown at step 120. Other computations may also be employed to determine link control parameters, in addition to the transfer model table 42 lookup described above. Packet transmission employing the link control parameters 46 is requested, as disclosed at step 122, by applying the link control parameters 46 to the connection.

Please replace the paragraph at page 9, lines 8 through 29 and page 10, lines 1 through 13 with the following amended paragraph:

Referring to Fig. 7, at the base station 16, incoming traffic is separated into individual traffic flows destined for separate subscriber access units 14 generally (Fig. 1). The traffic flows may be separated by various methods, such as by examining a destination address field in the TCP/IP header. The individual traffic flows are delivered first to transport modules 401-1, 401-2, ..., 401-n with a transport module 401 corresponding to each of the intended subscriber units 14. A given transport module 401 is the first step in a chain of processing steps that is performed on the data intended for each subscriber unit 14. This processing chain includes not only the functionality implemented by the transport module 401 but also a number of session queues 410, a session multiplexer 420, and transmission buffers 440. The outputs of the various transmission

buffers 440-1, 440-2, ..., 440-n are then assembled by a transmit processor 450 that formats the data for transmission over the forward radio links [[110]].

Returning attention now to the top of the Fig. 7 again, each transport module 401 has the responsibility of either monitoring the traffic flow in such a way that it stores data belonging to different transport layer sessions in specific ones of the session queues 410 associated with that transport module 401. For example, transport module 401-1 assigned to handle data intended to be routed to subscriber unit [[101-1]] 14 has associated with it a number, m, of session queues 410-1-1, 410-1-2, ..., 410-1-m. In the preferred embodiment, a given session may be characterized by a particular transport protocol in use. For example, in a session oriented transport protocol, a session queue 410 is assigned to each session. Such session transport oriented protocols include, for example, Transmission Control Protocol. In sessionless transport protocols, a session queue 410 is preferably assigned to each stream. Such sessionless protocols may for example be the Universal Datagram Protocol (UDP). Thus traffic destined for a particular subscriber unit 14 is not simply routed to the subscriber unit 14. First, traffic of different types from the perspective of the transport layer are first routed to individual session queues 410-1-1, 410-1-2, ..., 410-1-m, associated with that particular connection. In accordance with the system as defined above, traffic indicating a new connection is analyzed to determine link performance characteristics 44 for the messages received on that connection. The link performance characteristics 44 are analyzed to determine a flow model index 55, as described above with respect to Fig. 3. The flow model is then used to compute a transfer model entry 54 as described above with respect to Fig. 4. The transport module 401 invokes the link performance characteristics 46 corresponding to the computed transfer model entry 54, and applies them to the session queue 410-n-m for this connection.